U.S. Serial No.: 10/551,603

Title: "Methods for Neural Differentiation of Embryonic Stem Cells Using Protease Passaging Technique"

Filed: September 30, 2005

Response to Office Action of September 19, 2008

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. Please add the words shown by underline and delete the words shown by strikethrough.

1. (Currently Amended) A human aneuploid embryonic stem cell culture, wherein a majority of cells have an a stable abnormal karyotype that comprises a trisomy selected from the group consisting essentially of a sex chromosome X, autosomal chromosome 12, autosomal chromosome 17 and combinations thereof, and wherein the majority of cells of the culture do not express SSEA1, express SSEA3, SSEA4, Oct4, Tra-1-60, Tra-1-80, and express nestin substantially uniformly.

2. (Original) The cell culture of Claim 1, wherein the cell culture was dissociated to an essentially single cell culture.

3. (Canceled)

4. (Currently Amended) The cell culture of Claim 1, wherein a majority of the cells have an the abnormal karyotype that comprises a trisomy of at least one autosomal sex chromosome X.

5. (Currently Amended) The cell culture of Claim 1 4, wherein the abnormal karyotype comprises a trisomy of autosomal chromosome 12. the autosomal chromosome is selected from the group consisting of chromosomes 1, 7, 8, 12, 14, and 17.

6. (Currently Amended) The cell culture of Claim 1 5, wherein the abnormal karyotype comprises a trisomy of autosomal chromosome 17-the autosomal chromosome 12 or 17.

7. (Currently Amended) The cell culture of Claim 1, wherein a majority of the cells have an the abnormal karyotype that comprises a trisomy of more than one autosomal sex chromosome X, autosomal chromosome 12 and autosomal chromosome 17.

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8-30. (Canceled)

- 31. (Currently Amended) A human aneuploid embryonic stem cell produced by:
 - a) selecting a pluripotent embryonic stem cell using an anti-SSEA4 antibody; and
 - b) maintaining a culture of the cell by passaging the cell using a protease treatment, wherein a majority of cells in the culture have an a stable abnormal karyotype that comprises a trisomy selected from the group consisting essentially of sex chromosome X, autosomal chromosome 12, autosomal chromosome 17, and combinations thereof, and wherein the majority of cells of the culture do not express SSEA1, express SSEA3, SSEA4, Oct4, Tra-1-60, Tra-1-80, and express nestin substantially uniformly.

32.-74. (Canceled)

- 75. (Previously Presented) The cell of Claim 31, wherein the cell culture was dissociated to an essentially single cell culture.
- 76. (Currently Amended) The cell of Claim 31, wherein a majority of the cells have an the abnormal karyotype that comprises a trisomy of at least one autosomal sex chromosome \underline{X} .
- 77. (Currently Amended) The cell of Claim <u>31</u> 76, wherein the <u>abnormal karyotype</u> comprises a trisomy of autosomal chromosome <u>12</u> autosomal chromosome is selected from the group consisting of chromosomes <u>1</u>, <u>7</u>, <u>8</u>, <u>12</u>, <u>14</u>, and <u>17</u>.
- 78. (Currently Amended) The cell of Claim <u>3176</u>, wherein the <u>abnormal karyotype comprises</u> <u>a trisomy of autosomal chromosome 17 autosomal chromosome is chromosome 12 or 17</u>.
- 79. (Currently Amended) The cell of Claim 31, wherein a majority of the cells have an the abnormal karyotype that comprises a trisomy of more than one autosomal chromosome sex chromosome X, autosomal chromosome 12 and autosomal chromosome 17.

80-81 (Canceled).

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